

トピックス

内因性オピオイドペプチドによる心筋保護

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HTLV-I 関連脊髄症(HAM)の病態と治療

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原 著

HSV-1初感染顔面神経麻痺 マウスにおけるNOの役割とedaraboneの効果

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Summary

The present study was under gone to elucidate a role of nitric oxide (NO) on induction of facial palsy by inoculation of herpes simplex type1 (HSV-1), and to evaluate the effects of edarabone to prevent occurrence of facial palsy of the viral origin.

NO levels of in the facial nerve were measured by use of a high performance liquid chromatography and absorption photometry. Before the incidence of facial palsy, no substantial difference in NO levels was noted between HSV-1 inoculated sides (right) and the control (left) sides. When the facial nerve palsy occurred, NO levels of the paralyzed side were higher than of the other side. Following recovery of the palsy, NO of both sides were at the same level. In the mice that facial nerve paralysis did not occur in spite of inoculation of HSV-1, NO of both sides were at the same level.

According to immunohistological study using the confocal laser microscope, inducible nitric oxide synthase (iNOS) was observed in the inflammatory cells at the geniculate ganglion in animals with facial palsy presents. It was recognized only at the involved paralyzed side not at the contralateral side.

Edarabone, a free radical scavenger, was administered to the animals immediately after inoculation of HSV-1 for as long as 11 days. The results indicated that 10 mg/kg of edarabone was effective in reducing the incidence of facial palsy.

In conclusion, NO, which is supposed to be produced at the geniculate ganglion via iNOS, plays an important role in induction of facial palsy by HSV-1, and, such damages may be prevented by use of edarabone.

Key Words : facial nerve paralysis, nitric oxide, edarabone

IK cytokineによるループス腎炎の抑制効果

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#### Summary

We show that IK cytokine can ameliorate the progression of lupus nephritis in MRL/lpr mice. IK cytokine acted as a secretory protein when translated from methionine at 316 amino acid. This truncated IK cytokine (tIK) reduced IFN- $\gamma$ -induced MHC class II expression in various cells through decreased expression of CIITA. Treatment of MRL/lpr mice with tIK significantly reduced renal damage compared with control mice. A significant decrease in infiltration of macrophages and T cells was found in the kidney of tIK-treated mice, resulting in decreased IFN- $\gamma$  and IL-2 production. A significant reduction of anti-DNA antibodies and circulating ICs was also observed in tIK-treated mice. These findings were due to a specific reduction in MHC class II expression on B cells and monocytes as well as in the kidney, leading to a reduction of activation and expansion of autoreactive T cells, autoantibody production, and renal injury. The tIK may therefore provide a new therapeutic approach to lupus nephritis.

Key Words : IK cytokine, MHC class II, lupus nephritis

#### 脳動脈瘤の診断における3T 3D-TOF MRAの初期経験

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愛媛医学 25(2):108-111, 2006

#### Summary

We assessed the value of 3T 3D-TOF MRA in the diagnosis of intracranial aneurysms compared with 1.5T 3D-TOF MRA. Twenty-one patients with 22 aneurysms underwent MRA at 1.5T and 3T. Images were interpreted by two radiologists. Each of nine aneurysms that had been considered "definite" at 1.5T 3D-TOF MRA were considered "definite" at 3T 3D-TOF MRA. Seven aneurysms that had been considered "suspicious" at 1.5T MRA were considered "definite" at 3T. And four aneurysms that had been considered "suspicious" at 1.5T were considered "negative" at 3T. We concluded that 3T 3D-TOF MRA is superior to 1.5T 3D-TOF MRA in the diagnosis of intracranial aneurysms.

Key Words : 3T, MRA, intracranial aneurysms

#### 限局型または分節型頸椎後縦靭帯骨化症に対するKeyhole Anterior Approachおよびチタン製ケージを用いた低侵襲前方到達法

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愛媛医学 25(2):112-121, 2006

#### Summary

Object : Anterior decompression as a radical treatment of ossification of the posterior longitudinal ligament (OPLL) of the cervical spine is a common procedure, but it has the problems of optimal vertebral bone fixation and late degenerative changes in adjacent intervertebral levels. I describe modified (new) surgical techniques and the surgery-related outcome of anterior decompression for circumscribed and segmental OPLL of the cervical spine.

Materials and Methods : Thirty-five patients with cervical OPLL underwent anterior decompressive surgery. There were 24 men and 11 women with a mean age of 59.4 years. Preoperative neurological deficits were

myelopathy in 32 cases and radiculopathy in three cases. Keyhole anterior approach without fixation was performed in 9 cases of circumscribed or small segmental OPLL. Interbody cage fixation was performed in 26 cases of segmental OPLL, and in 17 of these 26 cases, keyhole anterior approach to the other levels for associated discogenic disease and/or retrovertebral OPLL was combined with interbody cage fixation. Considering the extent of the ossified mass that was clearly verified on 3D-CT, the extent of corpectomy and the proper size of the cage were decided. Patients were followed after surgery for an average of 25 months (4-112 months).

Results : The Neurosurgical Cervical Spine Scale improved from 9.7 (before surgery) to 12.6 (after surgery), and the mean recovery rate was 69.2%. One patient developed mild Horner syndrome postoperatively. In 20 cases followed for more than one year, the fusion rate of 28 levels of interbody cage fixation was 89.2%.

Conclusion : Direct removal of the OPLL via keyhole anterior approach and/or appropriate partial corpectomy with interbody cage fixation resulted in a good outcome, including alignment of the cervical spine, bone fixation, and early recovery of patients.

Key Words : anterior approach, posterior longitudinal ligament, ossification

### 上腕緊縛時の動脈血流速度および痛みとしびれ—アメゴム製駆血帯と伸縮性平ゴム製駆血帯の比較—

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愛媛医学 25(2): 122-127, 2006

#### Summary

To compare the usefulness and safety of rubber and rubber/fabric-type tourniquets, changes in the flow velocity in the radial artery and the pain and numbness experienced by patients were examined before and after each tourniquet's use. The subjects were 11 healthy females. Flow velocity in the radial artery and heart rate were measured using an ultrasonic doppler blood flow speed meter when a nurse of five years' experience drew the vein blood using normal methods. The pain and the sense of numbness were evaluated by using Visual Analogue Scale (VAS). In both tourniquets, the flow velocity in the radial artery was decreased by about 50% compared to when at rest. However, the pain evaluated by VAS was 1.5 times stronger in the rubber tourniquets than in the rubber/fabric-type tourniquets. There was no significant difference in the sense of numbness evaluated by VAS between the two tourniquets. In conclusion, the rubber/fabric-type tourniquet was more useful and safe for the patients than the rubber tourniquet.

Key Words : rubber tourniquet, rubber/fabric-type tourniquet, blood draw

### 症例報告

#### 網膜中心動脈閉塞症, 多発大腸潰瘍の合併を認めたアレルギー性肉芽腫性血管炎の1例

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愛媛医学 25(2): 128-133, 2006

#### Summary

A 70 year-old man who had been suffering from mononeuritis multiplex for about two weeks was admitted to our hospital. He had additionally been suffering from bronchial asthma for five months. On his laboratory data, eosinophils and serum IgE were increased, and MPO-ANCA was positive. We diagnosed him with allergic

granulomatous angiitis (AGA). On the sixth hospital day, he developed sudden visual loss of his right eye, and we diagnosed him with central retinal artery occlusion after ophthalmological examinations. In the second month after admission, he developed anemia and low albuminemia. After colonoscopy, we found that anemia and low albuminemia were due to multiple colonic ulcers.

Although the association of AGA with retinal artery occlusion and multiple colonic ulcers is rarely reported, it is suggested that early diagnosis and powerful treatment are important for the prognosis of AGA patients.

Key Words : Allergic granulomatous angiitis (AGA), Central retinal artery occlusion, Multiple colonic ulcers

### **溺水で発症したARDSの改善した1例**

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愛媛医学 25(2): 134-137, 2006

#### **Summary**

A 70-year-old female nearly drowned in a hot spring (sea water) and was admitted to our hospital with respiratory failure. We diagnosed her with adult respiratory distress syndrome (ARDS) due to secondly drowning. Steroid therapy and sivelestat therapy were introduced by mechanical ventilation. Her respiratory condition improved, so she was extubated on the 13th hospital day. She was not thought to have legionnaire's pneumonia because legionnaire's antigen was not revealed in her urine and antilegionnaire's antibody was not revealed in her serum. One month after admission, a chest-computed tomography showed a shadow consistent with nonspecific interstitial pneumonia's pattern (NSIP pattern), an anti-centromere antibody was revealed, and the serum KL-6 level was elevated. Two months after admission, her condition was better than it was one month before. However the interstitial shadow on the chest CT did not change and the serum KL-6 level was still high. We believe that this patient has had interstitial pneumonia for a long time.

Key Words : drowning, ARDS, interstitial pneumonia

### **腹部症状で発症した日本紅斑熱の1例**

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愛媛医学 25(2): 138-141, 2006

#### **Summary**

We report a 68-year-old woman who was admitted to our hospital because of vomiting with nausea, high fever and general fatigue. Initially, we made a tentative diagnosis of enterocolitis and administered flomoxef, but this had no effect. The patient then developed generalized erythema, followed by petechiae on the lower legs. Laboratory data showed thrombocytopenia and an increased level of C-reactive protein. Closer examination revealed an eschar on the left lower leg. We therefore administered minocycline, and this resulted in immediate improvement of the symptoms. The level of specific IgG against *Rickettsia japonica* was found to be increased, and the Weil-Felix reactions for *Proteus* OX2 and OX19 were positive. The patient was therefore diagnosed as having Japanese spotted fever caused by *Rickettsia japonica*. As Japanese spotted fever is a rare disease in Ehime prefecture, and can lead to serious conditions such as disseminated intravascular coagulation or multiple organ failure, close attention should be paid to patients who present with high fever, erythema or petechiae.

Key Words : Japanese spotted fever, *Rickettsia japonica*, abdominal symptoms

## 漢方薬による偽性アルドステロン症が発見の契機となった副腎腫瘍の1例

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愛媛医学 25(2): 142-145, 2006

### Summary

A 75-year-old woman was admitted with sensory disturbance of the extremities. She was referred to us for hypokalemia. She had been administered Chinese medicine including glycyrrhizin since one month before admission for the treatment of sciatic neuralgia. On admission, her serum potassium was at 1.6 mmol/l, and her urinary potassium was at 22.4 mmol/l. The blood gas showed hypoxemia and metabolic alkalosis, and plasma aldosterone and plasma renin activity (PRA) were low. In light of the inspection results and the rise of potassium caused by the Spironolactone administered after hospitalization, the patient was diagnosed with pseudo-aldosteronism. Furthermore, an adrenal tumor was discovered from MRI. The factor that promotes hypokalemia might be hidden. When medicine made of glycyrrhizin is used, we have to warn such a background enough.

Key Words : pseudo-aldosteronism, adrenal tumor, hypokalemia

## 総説

### 男性更年期障害

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愛媛医学 25(2): 146-150, 2006

### Summary

Partial androgen deficiency in aging male (PADAM) is a biochemical syndrome associated with a deficiency in serum androgen levels. We review the symptoms and treatment of PADAM. PADAM is characterized by diminished physical and psychological functions such as depression, erectile dysfunction, decreased sex drive, loss of muscle tone or strength and lethargy. The measurement of serum total and/or free testosterone is sufficient to evaluate serum androgen levels. Replacement of testosterone in older men has shown some positive effects on each of these symptoms. During testosterone replacement, several adverse effects, including prostate cancer or hyperplasia, impairment of liver function, polycythemia and sleep apnea should be monitored.

Key Words : PADAM, testosterone, questionnaire

## 研究会抄録

### 第89回愛媛脳神経外科懇話会

愛媛医学 25(2): 151-154, 2006

### 第15回愛媛形成外科研修会

愛媛医学 25(2): 155-157, 2006

### 第103回愛媛整形外科集談会

愛媛医学 25(2): 158-162, 2006